Project Baseline Summary Report

Data Source: **EM CDB**
Report Number: **GEN-01b**
Operations/Field Office: **Albuquerque**
Print Date: **3/9/2000**
Site Summary Level: **Los Alamos National Laboratory**
HQ ID: **0015**
Project **AL028 / Nuclear Material Stewardship Project Office**

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

The Nuclear Materials Stewardship Project Office
(1) provides field management of the Department's Nuclear Materials Stewardship Program to ensure successful interim storage and consolidation of plutonium and other nuclear materials in an efficient, effective and safe manner;
(2) implements nuclear materials technology, standards and data management;
(3) serves as principal integrator for planning, packaging, transportation, interim storage and surveillance systems; and,
(4) expedites removal of plutonium, and eventually, all nuclear materials from facilities and sites to be remediated to reduce mortgages, facilitate achievement of Accelerating Cleanup goals, and minimize the need for new storage facilities.
This program ensures the availability of an appropriate infrastructure of facilities, technologies and capabilities to provide for interim storage of excess nuclear materials of interest to Environmental Management in a safe, secure, and accountable manner until their long-term disposition or placement in a long-term storage facility.

The scope of the Nuclear Materials Stewardship Project Office, as part of the Nuclear Material Stewardship Program, includes the following materials:
· excess nuclear materials that are the responsibility of Environmental Management,
· excess nuclear materials that are the responsibility of other Programs but are located at Environmental Management sites and facilities, and
· excess nuclear materials reasonably expected to become the responsibility of Environmental Management in the future.
Specific responsibilities of the Nuclear Materials Stewardship Project Office include the following:
· develop and deploy technology needed to ensure the safe and timely stabilization and interim storage of excess nuclear materials
· co-chair the Nuclear Materials Focus Area
· identify specific transportation and packaging needs and requirements of the Stewardship Program
· provide an integrated packaging and transportation schedule
· coordinate with the Transportation Safeguards System and the National Transportation Program.
· manage consolidation and interim storage of excess pits and shapes
· integrate with the Fissile Materials Disposition Program for storage and shipping of excess pits
· support inter-agency agreements for arms control and nonproliferation studies and technology development
· implement Transparency Agreements
· evaluate Treaty Verification commitments
· implement START III requirements

The Nuclear Materials Stewardship Project Office will accomplish its objectives by integrating and coordinating the activities of the Programs currently involved in the stabilization, interim storage, and transportation of Environmental Management's excess nuclear materials. This integration will also result in leveraging the existing resources to maximize progress within the constrained budgets that exist.

Project Status in FY 2006:

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Project **AL028 / Nuclear Material Stewardship Project Office**

Project Description Narratives

The Nuclear Materials Stewardship Project Office will continue to;
(1) provide field management of the Department's Nuclear Materials Stewardship Program to ensure successful interim storage and consolidation of plutonium and other nuclear materials in an efficient, effective and safe manner;
(2) implement nuclear materials technology, standards and data management;
(3) serve as principal integrator for planning, packaging, transportation, interim storage and surveillance systems; and,
(4) expedite removal of all nuclear materials from facilities and sites to be remediated to reduce mortgages, facilitate achievement of Accelerating Cleanup goals, and minimize the need for new storage facilities.
Consolidation of Environmental Management's excess nuclear materials to interim storage sites is expected to be mostly completed by this time.
Removing nuclear materials from the Closure Sites [Mound, Fernald, and Rocky Flats] to support their closure schedules will be complete, having received priority attention.
Integrated planning and scheduling will be underway for the transfer of Environmental Management's excess nuclear materials to the appropriate disposition programs.
The Nonactinide Isotopes and Sealed Source Material Management Center will be fully operational, providing assistance to sites / programs in dispositioning these types of nuclear materials that are no longer required for their mission. A virtual radioactive source bank will be established to promote and facilitate the reuse of sealed sources in the Department. Receiver sites will be established to facilitate the timely disposition and / or interim storage of excess materials pending transfer to the Program responsible for ultimate disposition.

Post-2006 Project Scope:

The Nuclear Materials Stewardship Project Office will continue to;
(1) provide field management of the Department's Nuclear Materials Stewardship Program to ensure successful interim storage and consolidation of plutonium and other nuclear materials in an efficient, effective and safe manner;
(2) implement nuclear materials technology, standards and data management;
(3) serve as principal integrator for planning, packaging, transportation, interim storage and surveillance systems; and,
(4) expedite removal of all nuclear materials from facilities and sites to be remediated to reduce mortgages, facilitate achievement of Accelerating Cleanup goals, and minimize the need for new storage facilities.
Consolidation of Environmental Management's excess nuclear materials to interim storage sites will be completed.
Integration with material disposition programs planning will continue and transfer of materials to these disposition programs is expected to begin by approximately FY 2015.
The Department will have begun to receive excess nuclear materials for disposition as required by the amendments to the Low Level Waste Act [e.g., neutron sources that meet Greater Than Class C criteria]. Integration and coordination of interim storage and permanent disposition activities will be the responsibility of this Office.

Project End State

All of Environmental Management's excess nuclear materials have been transferred to the appropriate Programs for final disposition.
The Department will have completed receipt and permanent disposition of all of the excess nuclear materials required by the amendments to the Low Level Waste Act [e.g., neutron sources that meet Greater Than Class C criteria].

Cost Baseline Comments:

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Project Description Narratives

Costs for this PBS were estimated based on experience to-date and estimates from experienced staff for projected activities.
This is the initial entry of the cost baseline for this Project in the PBS / IDMS systems. Although long-range planning for the Project exists, costs and funding in prior years were not captured and tracked through the above systems.

Safety & Health Hazards:

Environmental Management's excess nuclear materials are widely varied in isotopic and chemical composition and physical form, and therefore could present a variety of hazards [singly or in combinations]. Nuclear materials can present hazards to workers, the public, and the environment due to unintentional or intentional dispersal. The fissile materials can present criticality safety concerns in addition to the more normal radiological hazards.
Some of the excess nuclear materials may contain listed and / or characteristic hazardous materials, presenting chemical hazards in addition to the radiological hazards.
Some of the excess nuclear materials have been stored for long periods of time with inadequate monitoring and inspection. Repackaging and transportation of these materials required to prepare these materials for disposition may pose hazards because of this, such as degraded packages, changed radiological characteristics due to the build up of radioactive daughter products, or generation of radiolytic decay products [e.g., hydrogen gas].
Some of inspection, repackaging, or interim storage functions may have to utilize existing facilities. Many of the Department's nuclear processing facilities are nearing the end of their design life. These aging facilities require increasing amounts of preventive maintenance and repairs to continue to operate safely. Pressure from declining budgets can result in some facilities not receiving adequate attention, which can result in the facilities no longer being capable of being operated safely and therefore not being available for the packaging, repackaging, and / or inspection activities.

Safety & Health Work Performance:

The Nuclear Materials Stewardship Project Office, and the Nuclear Material Stewardship Program, can access subject matter experts in the Department's Program Offices, field sites, and National Laboratories in addition to the highly skilled and experienced staffs in the Stewardship Program.
Coordination, integration, and facilitation are key mechanisms that the Stewardship Program uses to identify and resolve issues among the Department's organizations having responsibilities related to nuclear materials.
Focused, systems engineering based studies, also know as Trade Studies, can be used to evaluate complex situations and provide recommendations for problem resolution.
Decisions are made using the Department's existing decision process, which includes the appropriate levels of NEPA analysis and documentation.

PBS Comments:

Baseline Validation Narrative:

The Nuclear Materials Stewardship Office will not be conducting a validation of LANL data due to the heavy workload of the Nuclear Materials Stewardship Office.

General PBS Information

Project Validated? **Date Validated:**

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General PBS Information

Has Headquarters reviewed and approved project? No

Date Project was Added:

Baseline Submission Date: 7/1/1999

FEDPLAN Project? No

Drivers:	CERCLA	RCRA	DNFSB	AEA	UMTRCA	State	DOE Orders	Other
	N	Y	Y	Y	N	N	Y	N

Project Identification Information

DOE Project Manager: Michael L. Gates

DOE Project Manager Phone Number: 505-845-4811

DOE Project Manager Fax Number: 505-845-5872

DOE Project Manager e-mail address: mgates@doeal.gov

Is this a High Visibility Project (Y/N):

Planning Section

Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006
PBS Baseline (current year dollars)	27,780	45,954	73,734	788	788	1,200	1,200	792	1,000	3,000	4,000	4,100	4,200	4,300	4,400
PBS Baseline (constant 1999 dollars)	25,421	34,315	59,736	788	788	1,200	1,200	792	974	2,861	3,736	3,751	3,763	3,774	3,782
PBS EM Baseline (current year dollars)	27,780	45,954	73,734	788	788	1,200	1,200	792	1,000	3,000	4,000	4,100	4,200	4,300	4,400
PBS EM Baseline (constant 1999 dollars)	25,421	34,315	59,736	788	788	1,200	1,200	792	974	2,861	3,736	3,751	3,763	3,774	3,782

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	2007	2008	2009	2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
PBS Baseline (current year dollars)	4,000	3,500	3,600	3,600	18,554	12,700	0	0	0	0	0	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	3,368	2,886	2,907	2,848	13,796	8,510	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	4,000	3,500	3,600	3,600	18,554	12,700	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	3,368	2,886	2,907	2,848	13,796	8,510	0	0	0	0	0	0	0	0	0	0

Baseline Escalation Rates

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
0.00%	0.00%	0.00%	2.70%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

Project Reconciliation

Project Completion Date Changes:

Previously Projected End Date of Project:

Current Projected End Date of Project: 9/30/2020

Explanation of Project Completion Date Difference (if applicable):

New PBS

Project Cost Estimates (in thousands of dollars)

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Project Reconciliation

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):		**Actual 1997 Cost:**	788	**Actual 1998 Cost:**	1,200
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	-1,988	**Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):**			-54
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	-2,042				

Project Cost Changes

	Cost Adjustments	Reconciliation Narratives
Cost Change Due to Scope Deletions (-):		
Cost Reductions Due to Efficiencies (-):		
Cost Associated with New Scope (+):	59,790	New PBS
Cost Growth Associated with Scope Previously Reported (+):		
Cost Reductions Due to Science & Technology Efficiencies (-):		
Subtotal:	57,748	
Additional Amount to Reconcile (+):	0	
Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	**57,748**	

Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Nuclear Materials Stewardship Project Office authorized			5/12/1997								
Nuclear Materials Stewardship Project Office mission completed			9/30/2020								
Disposition Alternatives for NISS Materials			9/30/1999								Y
FY-2000 Packaging and Transportation Schedule			9/30/1999								Y
FY-2001 Packaging and Transportation Schedule			9/30/2000								Y
FY-2002 Packaging and Transportation Schedule			9/30/2001								Y

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Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
NISS MMC Authorized to Accept Materials			9/30/2001							Y	Y
NMSPO End of Project			9/30/2020								

Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
Nuclear Materials Stewardship Project Office authorized				Y							This is the date on which the Nuclear Materials Stewardship Project Office was authorized by the Assistant Secretary for Environmental Management.
Nuclear Materials Stewardship Project Office mission completed						Y					The Nuclear Materials Stewardship Project Office has reached the identified end state. All of Environmental Management's excess nulcear materials have been transfered to the appropriate disposition Programs.
Disposition Alternatives for NISS Materials											Integrated disposition alternatives for Nonactinide Isotope and Sealed Source materials will be identified, analyzed, compared to baseline disposition plans and recommeded for adoption if they improve the schedule, reduce cost, and / or reduce risk.
FY-2000 Packaging and Transportation Schedule											The integrated nuclear material packaging and transportation schedule for FY-2000 will be issued. This schedule will deal with Category I & II amounts of nuclear materials.

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Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
FY-2001 Packaging and Transportation Schedule											The integrated nuclear material packaging and transportation schedule for FY-2001 will be issued. This schedule will deal with Category I & II amounts of nuclear materials.
FY-2002 Packaging and Transportation Schedule											The integrated nuclear material packaging and transportation schedule for FY-2002 will be issued. This schedule will deal with Category I & II amounts of nuclear materials.
NISS MMC Authorized to Accept Materials											The Nonactinide Isotopes and Sealed Sources Material Management Center will receive authorization to accept certain excess nuclear materials for interim storage, preparation for disposition, and / or permenant disposition.
NMSPO End of Project					Y						End of Nuclear materials Stewardship Project Office. See Mission Completion milestone [2692] for endstate.